



Montana Fish, Wildlife & Parks

February 24, 2000

1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Nongame Coordinator
Great Falls Office

Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Lewis and Clark County Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Mr. Alan McNeal, NRCS, 790 Colleen Street, Helena, MT 59601
Mr. Lex Riggle, NRCS, 790 Colleen Street, Helena, MT 59601
Mr. Don Burnham, Prickly Pear Simmental Ranch, 2515 Canyon Ferry Rd., Helena, MT 59601

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to restore the dimension, pattern and profile of a 2,100 foot reach of Prickly Pear Creek. This proposed project is located on property owned by the Prickly Pear Simmental Ranch approximately 1 mile east of the city of Helena in Lewis and Clark County.

Please submit any comments that you have by 5 P.M., March 24, 2000 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division

ENVIRONMENTAL ASSESSMENT
Fisheries Division
Montana Fish, Wildlife and Parks
Prickly Pear Creek Channel Restoration and Fish Habitat Improvement Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purposes of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. This project is being proposed to restore the dimension, pattern and profile of approximately 2,100 feet of stream channel on Prickly Pear Creek. The intent of this project is to provide for a greater diversity in fish habitat and to enhance and protect the riparian vegetative community. The project, involving oversight by personnel from the Natural Resources and Conservation Service and Montana Fish, Wildlife and Parks, is on property owned by the Prickly Pear Simmental Ranch located approximately 3 miles east of the city of Helena in Lewis and Clark County (Attachment 1).

I. Location of Project: This project will be conducted on Prickly Pear Creek, a tributary to Lake Helena. The project area is located approximately 3 miles east of the city of Helena within Township 10 North, Range 3 West, Section 15 in Lewis and Clark County.

II. Need for the Project: Department Goal C indicates that a Fisheries Division objective is to "provide and support programs to conserve and enhance high quality aquatic habitat and protect native aquatic species." The Future Fisheries Improvement Program is a tool to help achieve that objective.

Lower Prickly Pear Creek (downstream of the town of East Helena) has been severely degraded by a host of past stream management practices, including dewatering, gravel mining, channelization, and livestock over-grazing within the riparian corridor. These activities have resulted in reduced erosion resistance, accelerated bank erosion, increased sediment loads and associated adjustments in the dimension, pattern and profile of the channel (primarily over-widening). Past perturbations of the channel were greatly magnified by a severe flood event in 1981. Ongoing channel adjustments have resulted the loss of fish and wildlife habitat and a decline in water quality.

III. Scope of the Project:

The proposal calls for restoring approximately 2,100 feet of Prickly Pear Creek by re-establishing the proper dimension, pattern and profile of the channel; improving floodplain function; rehabilitating and protecting riparian vegetation; and creating increased erosion resistance on the stream banks (Attachments 2, 3 and 4). The proposed work primarily would involve narrowing and re-aligning portions of the channel, expanding the capacity of the floodplain through bank sloping, and installing natural material revetments (rootwads and tree revetment). Additionally, the Prickly Pear Simmental Ranch is entering into a Conservation Reserve Program contract with

the Natural Resources and Conservation Service (NRCS) which will result in the exclosure of approximately 3 miles of stream corridor from livestock grazing for a period of 10 years (See Attachment 1). This project is expected to cost \$30,115.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$15,555.00. The remainder of the required funding would come from a combination comprised of the landowner, NRCS and the U.S. Fish and Wildlife Service's Partners in Fish and Wildlife Program.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Restoring the existing channel to a proper dimension, pattern and profile is expected to create a more diverse and healthy habitat for aquatic life by reducing sediment loads, by enhancing overhead cover and by creating appropriate pool-riffle-run sequences. Expected improvements in the aquatic habitat should enhance resident trout populations in the stream, as well as migrant spawners from Lake Helena and Hauser Reservoir. Habitat for riparian dependent wildlife would also be improved by re-establishing a healthy riparian vegetative community through the creation of a livestock grazing exclosure along three miles of stream corridor.

2. Water quantity, quality and distribution.

Short term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 310 permit will be obtained from the local Conservation District and the U.S. Army Corp of Engineers will be contacted for requirements needed to meet the federal Clean Water Act (404 permit). In the long term, restoring the existing channel and the riparian vegetative community would act to reduce the sediment contribution to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

Soils in the project area would be disturbed during construction. However, disturbed soils would quickly stabilize following proposed bank stabilization efforts and the implementation of a livestock grazing exclosure along three miles of stream corridor.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be disturbed during the period of construction. However, proposed channel stabilization efforts, in conjunction with implementing a livestock grazing enclosure, would result in an overall improvement to the riparian vegetative community.

5. Aesthetics.

Aesthetics would be enhanced by restoring an unstable reach of stream to a more healthy and natural stream environment. Aesthetics would be further enhanced by the restoration and protection of the riparian vegetative community.

9. Historic and archaeological sites

The proposed project may require an individual Army Corp of Engineers (COE) 404 permit. Therefore, the State Historic Preservation Office has been contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

It is anticipated that the restoration of 2,100 feet of Prickly Pear Creek would improve overall aquatic habitat and, as a result, would enhance trout populations residing in the stream. Consequently, the recreational fishery in the stream would be expected to be improved. This reach of Prickly Pear Creek contains populations of rainbow trout, brown trout and mountain whitefish. The landowners currently allow public access for fishing with prior permission.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, this segment of Prickly Pear Creek will continue to be unstable. This ongoing instability will result in continued bank erosion, excessive sediment loading, channel down-cutting or aggradation and the loss of aquatic habitat. In addition, habitat for riparian dependent wildlife will remain in a degraded condition. Recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

2. The Proposed Alternative

The proposed alternative is designed to restore the dimension, pattern and profile of 2,100 feet of Prickly Pear Creek. The intent of the project is to increase the competency of the channel to transport bedload, stabilize eroding stream banks, improve floodplain function

and enhance fish and wildlife habitat, aesthetics and water quality within the project area. Additionally, implementation of this project would act as a demonstration project for other landowners along the stream. If implemented, the project would be considered as a first phase in a series of phases that are planned to address past perturbations to the Prickly Pear Creek corridor.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on the Montana Electronic Bulletin Board.

3. Duration of comment period?

Public comment will be accepted through 5 P.M. on March 24, 2000.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Montana Department of Fish, Wildlife and Parks
1420 East 6th Avenue
Helena, MT 59620

Telephone: (406) 444-2432

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Prickly Pear Creek Channel Restoration and Fish Habitat Improvement Project

Division/Bureau Fisheries Division -Future Fisheries Improvement

Description of Project The project is being proposed to restore the dimension, pattern and profile of approximately 2,100 feet of stream channel on Prickly Pear Creek. The intent of this project is to provide for a greater diversity in fish habitat and enhance and protect the riparian vegetative community. The project, involving the Prickly Pear Simmental Ranch and oversight by personnel from NRCS and MFWP, is located approximately 3 miles east of the city of Helena in Lewis and Clark County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats		X				X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality		X				X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

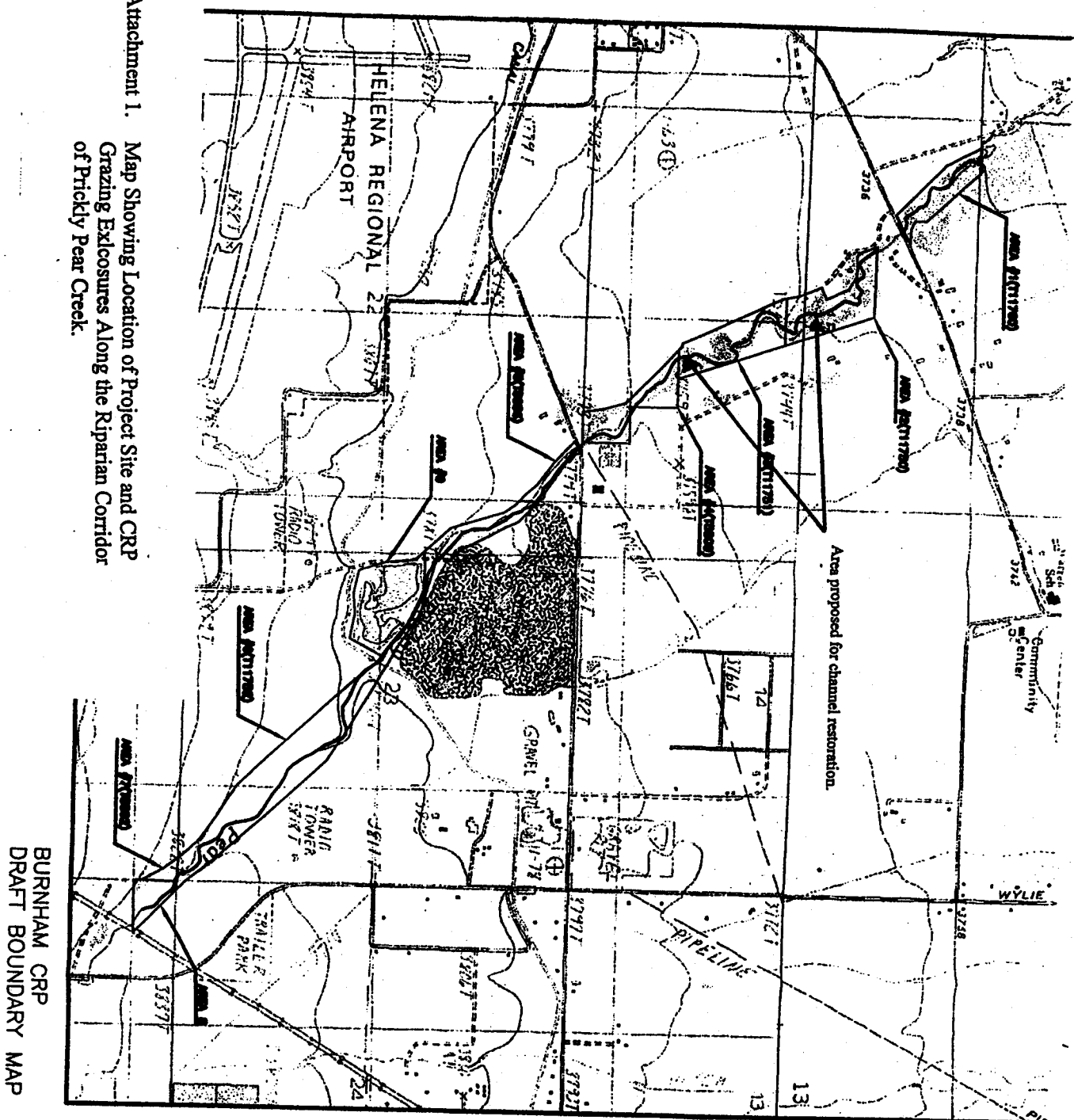
POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Lewis and Clark County Conservation District, NRCS, US

Fish and Wildlife Service, US Army Corp of Engineers, Montana
Department of Environmental Quality, State Historic Preservation Office
Individuals or groups contributing to this EA Mr. Alan McNeal, NRCS,
Helena; Mr. Lex Riggle, NRCS, Helena; Mr. Don Burnham; Mr. Gary Burnham
Recommendation concerning preparation of EIS No EIS required.
EA prepared by : Mark Lere
Date: February 4, 2000

Attachment 1. Map Showing Location of Project Site and CRP
Grazing Exlosures Along the Riparian Corridor
of Prickly Pear Creek.



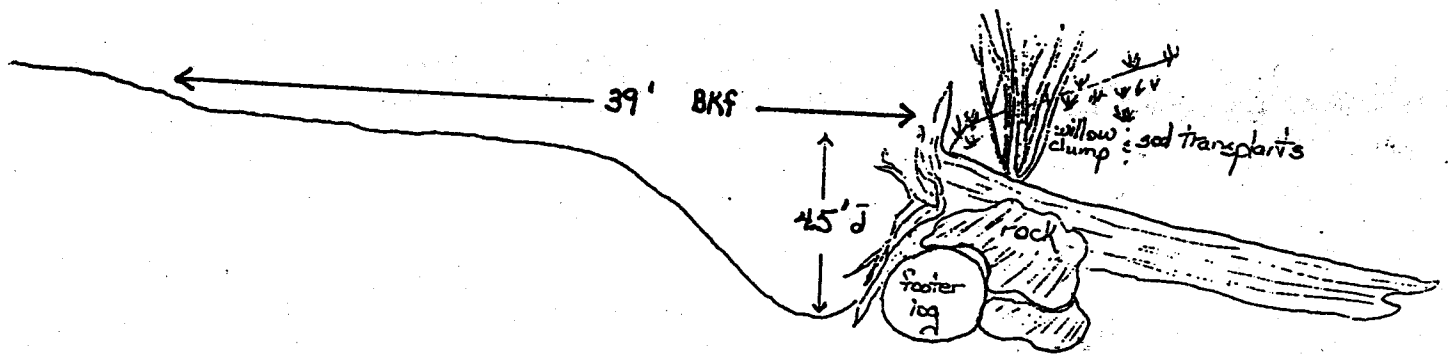
AREA #	SIZE IN ACRES +/-
1	11.0
2	18.0
3	18.5
4	13.8
5	27
6	82.6
7	1.6
8	5.7
9	22.0

BURNHAM CRP
DRAFT BOUNDARY MAP

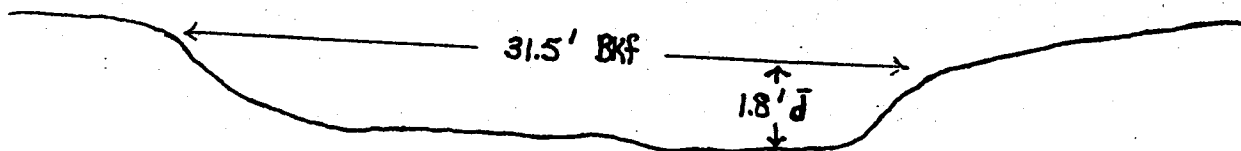
Attachment 2. Preliminary design (planar view) for proposed channel restoration on Prickly Pear Creek, Burnham Ranch.



Attachment 3. Preliminary design details (cross sections for bankfull dimensions) for proposed channel restoration on Prickly Pear Creek, Burnham Ranch.

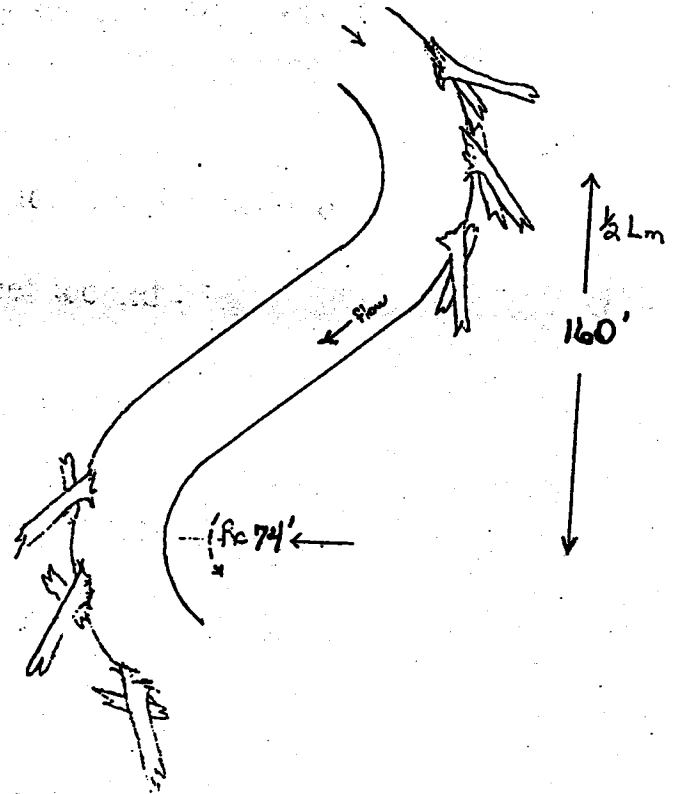


corner cross-section

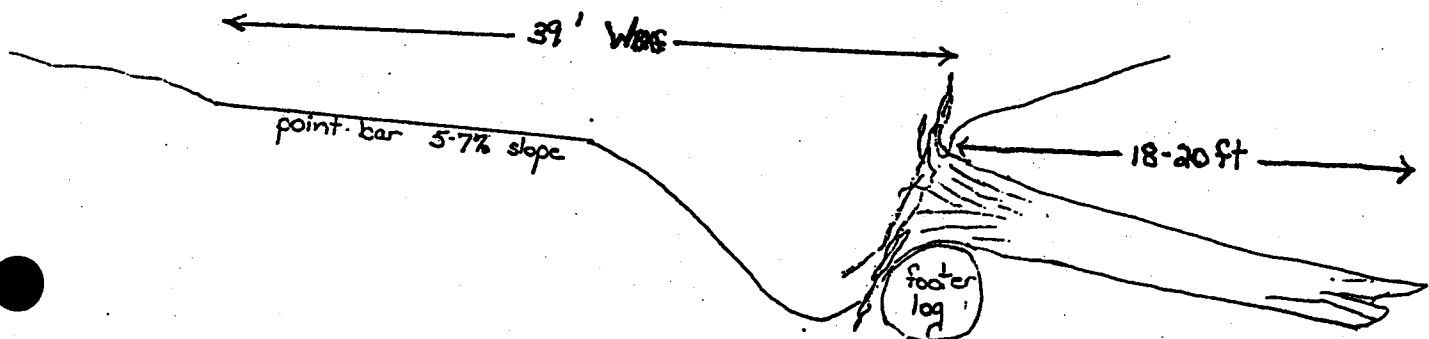


riffle cross-section

Attachment 4. Preliminary design details (planar view for bankfull dimensions) for proposed channel restoration on Prickly Pear Creek, Burnham Ranch.



planar view



pool cross-section